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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/513,605	02/25/2000	Keith E. Siders	SPL-22/47181-00209	6661

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EXAMINER

HARTMAN JR, RONALD D

ART UNIT PAPER NUMBER

2121

DATE MAILED: 06/24/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/513,605

Applicant(s)

SIDERS, KEITH E.

Examiner

Ronald D Hartman Jr.

Art Unit

2121

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 May 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-3 and 14-17 is/are allowed.
- 6) ☒ Claim(s) 5-13 is/are rejected.
- 7) ☒ Claim(s) 4 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 May 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

1. Claims 1-17 are presented for examination.

Claim Objections

2. Claim 4 is objected to because of the following informalities: the use of "can" renders the claims language indefinite. Appropriate correction is required.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. *Claims 5-8 and 10-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ryanaski et al., U.S. Patent No. 5,838,750, in view of Provanzano et al., U.S. Patent No. 4,484,303.*

As per claims 5 and 10, Ryanaski teaches a device comprising:

- a means for detecting a master query message frame generated by a master device (e.g. Figure 2a element 100 and C3 L1-4); and
- a means for interpreting the master query message frame as a first type of message frame or a second type of message frame (e.g. Figure 2a element 300 and C3 L4-8).

As per claims **5** and **10**, Ryanaski does not specifically teach a first incoming character for determining if the message is of the first type or the second type.

Provanzano teaches a programmable controller that utilizes both RTU and ASCII communication protocols, wherein the ASCII protocol is identified by use of a colon (e.g. C29 L12-32).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated the teachings of Provanzano into Ryanaski since Ryanaski teaches that an ASCII format is recognized (e.g. C3 L1-5) and since ASCII typically uses a colon at the beginning of the message frame, as taught by Provanzano, there must be some way of identifying the ASCII form other formats, and since both Provanzano and Ryanaski are both directed towards analogous art in that they both utilize more than one type of message formats for communication in ASCII and RTU protocols, and therefore the inclusion of a feature whereby the ASCII code is identified by way of a colon would be a feature that would obvious to one of ordinary skill in the art at the time the invention was made since it would provide for a simple way of determining whether the message is in ASCII or in another format.

5. As per claims **6** and **11**, Ryanaski teaches both ASCII and RTU message formats (e.g. C1 L22-35).

6. As per claims **7-8** and **12-13**, although Ryanaski's combined system does not specifically teach a response signal based on the format received, nor performing a

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specific command associated with the master query message frame, they are both believed to be obvious variations of Ryanaski for at least the following reasons. That is, since Ryanaski teaches the use of communications in multiple formats for use in a elevator monitoring system for transmitting *useful* information (e.g. C1 L65-67), a response would be obvious so the master would know if the message query was properly received, and a response in the same format that the query was issued would be obvious since it would allow for the device to not have to first convert the format into another format before transmitting a response. Secondly, since specific commands would obviously be considered useful information since they would instruct the device as to what actions, if any, should be taken in response to commands issued by a master, and therefore their inclusion would have been obvious to one of ordinary skill in the art at the time the invention was made.

7. *Claim 9 is rejected as being unpatentable over Ryanaski in view of Provanzano, as applied to claim 5 above, in view of Official Notice.*

As per claim 9, Official Notice is taken with respect to the use of an electronic communication system, as taught by Ryanaski's combined system, within the confines of an energy management system since communications in multiple formats obviously would benefit any communication system that utilizes more than one type of message format, and since it is well known that electrical distribution networks utilize more than one type of message format (i.e. Hart, U.S. Patent No. 6,005,759; RTU and ASCII) , the inclusion and advantages associated with utilizing multiple format message types would

be equally obvious in an energy management system for at least the same reasons, that is, to provide greater flexibility for the system so that different communication protocol may be utilized within the same system, and this would have been obvious to one of ordinary skill in the art at the time the invention was made.

Allowable Subject Matter

8. Claims 1-4 and 14-17 are allowed.

As per claims 1-4 and 14-17, specifically claims 1 and 14, the prior art of record fails to teach (***highlighted portions***) a Modbus slave device comprising:

- the capability of receiving, interpreting and responding to a first type and second type of message frame (hereafter: FTMF and STMF, respectively);
- means for detecting a master query message frame (hereafter: MQMF);
- ***if the first character detected is a prompt character for the FTMF, then setting a control bit to a first value; and setting the control bit to a second value if the first character detected is not the prompt character for the FTMF;***
- ***if the control bit has the first value, then interpreting the MQMF as the FTMF and if the control bit has the second value, then interpreting the MQMF as the STMF;***
- if the slave device is addressed in the MQMF, then performing a command associated with the MQMF; and

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- means for generating a slave response message frame (hereafter: SRMF) if the slave device is addressed in the MQMF and the command requires a response, the SRMF being of the FTMF if the control bit has the first value and the SRMF being of the STMF if the control bit has the second value.

Claims **2-4** and **15-17** are allowable as they are dependent upon an allowed base claims (**1** and **14**) for at least the reasons set forth above.

Conclusion

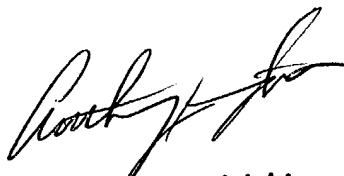
9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ronald D Hartman Jr. whose telephone number is 703-308-7001. The examiner can normally be reached on Mon. - Fri., 11:30 am - 8:00 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anthony Knight can be reached on 703-308-3179. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ronald D Hartman Jr.
Examiner
Art Unit 2121



Anthony Knight
Supervisory Patent Examiner
Group 3600